In the Claims

1. **(Currently Amended)** A method comprising compiling formatted video content into a <u>serialized</u> binary format that includes one or more of layout, rendering, user interface (UI) interaction, and dynamic aspects of the formatted video content[[.]]<u>, wherein the formatted video content includes an original markup language, and the compiling further comprises processing the formatted video content in the original markup language with a process that is specific to the original markup language and a process that is specific to a predetermined client for rendering the video content in the serialized binary format so as to be consistent with the original markup language.</u>

2. **(Cancelled)**

3. **(Original)** The method as defined in Claim 1, wherein:

the formatted video content includes source content in one or more formats; and

each said format is selected from the group consisting of an original markup language, a word processing document format, a spreadsheet format, a slideshow format, a database format, a drawing format, and an electronic mail (email) format.

4. **(Currently Amended)** The method as defined in Claim 1, further comprising:

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translating the video content in the <u>serialized</u> binary format with a serialized document object model into a deserialized document object model hierarchy corresponding to the video content of the original markup language; and

presenting the translated video content using the document object model hierarchy.

5. **(Original)** The method as defined in Claim 4, wherein the formatted video content includes an original markup language and the presenting includes:

the layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language; and

form elements, scrolling, navigation, and event handling defined in the video content from the original markup language.

6. **(Original)** The method as defined in Claim 4, wherein the formatted video content includes an original markup language, and:

the video content from the original markup language includes inline images and a shape within which the inline images are to be placed during the presenting; and

the presenting further comprises reflowing the inline elements within the shape consistent with a predetermined display resolution and size.

7. **(Original)** The method as defined in Claim 1, wherein the formatted video content includes an original markup language comprising Extensible Hypertext Markup Language (XHTML) with Cascading Style Sheets (CSS).

8. **(Currently Amended)** The method as defined in Claim 1, wherein the formatted video content includes an original markup language having one or more textual words that are translated into a plurality of languages and that are included in each of:

the original markup language; and

the serialized binary format.

9. **(Original)** A computer-readable medium comprising instructions that, when executed, perform that method of Claim 1.

10. **(Currently Amended)** A computer-readable medium comprising instructions that when executed:

capture the presentation results of ~~an emulation of~~ an interactive execution of a browser application processing video content in an original markup language, wherein the presentation includes layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language; and

create one or more serialized binary bit streams ~~maps and corresponding drawings commands~~ corresponding to the presentation results, wherein the serialized binary bit streams can be visually rendered and an end user may interact with the

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serialized binary bit streams through a user interface, and wherein the capture further comprises processing the video content in the original markup language with a markup-specific routine that is specific to the original markup language, and a client-specific routine specific to a predetermined client for rendering the one or more serialized binary bit streams so as to be consistent with the original markup language.

11. **(Cancelled)**

12. **(Currently Amended)** The computer-readable medium as defined in Claim 10, wherein the instructions, when executed:

translate the one or more serialized binary bit streams ~~maps and corresponding drawings commands~~ with a document object model into a document object model hierarchy corresponding to the video content of the original markup language; and

present the translated video content using the document object model hierarchy.

13. **(Original)** The computer-readable medium as defined in Claim 12, wherein the presenting includes:

the layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language; and

form elements, scrolling, navigation, and event handling defined in the video content from the original markup language.

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14. **(Original)** The computer-readable medium as defined in Claim 13, wherein:

the video content from the original markup language includes inline images and a shape within which the inline images is to be placed during the presenting; and

the presenting further comprises reflowing the text within the shape consistent with a predetermined display resolution and size.

15. **(Original)** The computer-readable medium as defined in Claim 10, wherein the original markup language comprises XHTML+CSS.

16. **(Currently Amended)** The computer-readable medium as defined in Claim 10, wherein one or more textual words are translated into a plurality of languages and included in each of:

the video content in the original markup language; and

the one or more serialized binary bit streams maps.

17. **(Withdrawn)** A method comprising:

receiving video content at a front end, the video content including XHTML and CSS;

pre-cascading the CSS using a CSS parser with the XHTML to generate a rendering-style record for each of a plurality of conditions that each of a plurality of display objects in the video content have for various interactive input;

forming a hierarchical tree of nodes, wherein the pre-cascading of the CSS provides a presentation for the hierarchical tree of nodes and the XHTML provides a structure for the hierarchical tree of nodes, wherein each said node is referenced to a corresponding said rendering-style record;

compiling the hierarchical tree of nodes into serialized binary data that includes, for each said node, information corresponding to the hierarchy and rendering-style record thereof;

transmitting the serialized binary data over a network;

receiving the serialized binary data from the network;

deserializing the received serialized binary data using a DOM to represent each said node of the hierarchical tree and the respective information corresponding thereto;

calculating a layout presentation for the nodes of the hierarchical tree, including sizing and reflow of the plurality of display objects against a predetermined size of the layout presentation; and

calling one or more draw functions to output the layout presentation.

18. **(Withdrawn)** A server-side for a headend performing from the method of Claim 17:

the receiving of the video content;

the pre-cascading;

the forming of the hierarchical tree of nodes, wherein each said node is referenced to a corresponding said rendering-style record;

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the compiling; and

the transmitting.

19. **(Withdrawn)** A client performing from the method of Claim 17:

the receiving of the serialized binary data;

the deserializing;

the calculating; and

the calling.

20. **(Withdrawn)** A server-side for a headend, comprising:

a parser to parse video content in an original markup language into a Document Object Model (DOM) tree that includes layout, rendering, UI interaction, and dynamic aspects of the video content;

a transcoder to transcode the DOM tree into video content in a serialized byte-stream that includes the layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language; and

a network interface for transmitting communications containing the serialized byte-stream.

21. **(Withdrawn)** The server-side for a headend as defined in Claim 20, wherein the original markup language comprises XHTML+CSS.

22. **(Currently Amended)** A Multiple System Operation (MSO) comprising:

storage for video content in an original markup language that includes layout, rendering, UI interaction, and dynamic aspects of the video content; and

one or more headends each having one or more servers, wherein each said server includes a compiler to compile the video content in the original markup language into video content in a binary format that includes the layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language[[.]], wherein the compiling comprises processing the video content in the original markup language with a markup-specific routine that is specific to the original markup language, and a client-specific routine specific to a predetermined client for rendering the video content in the binary format so as to be consistent with the original markup language.

23. **(Cancelled)**

24. **(Original)** The MSO as defined in Claim 22, wherein each said headend is for broadcasting on a network selected from the group consisting of:

a cable television broadcasting network;

a satellite television broadcasting network;

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an air wave broadcasting television network;

a local area network;

a wide area network; and

the Internet.

25. **(Original)** The MSO as defined in Claim 22, wherein the original markup language comprises XHTML+CSS.

26. **(Withdrawn)** A client comprising:

processing hardware; and

memory including an operating system and one or more applications for execution by the processing hardware, wherein:

a decoder application which, when executed by the processing hardware, decodes video content in a binary format with a document object model into a document object model hierarchy, wherein:

the video content in the binary format includes layout, rendering, user UI interaction, and dynamic aspects of video content from an original markup language; and

the document object model hierarchy corresponds to the video content in the original markup language;

a video output said application which, when executed by the processing hardware, presents the decoded video content using the document object model hierarchy.

27. **(Withdrawn)** The client as defined in Claim 26, wherein:

the video content from the original markup language includes text and a shape within which the text is to be placed during the presenting; and

the presenting of the decoded video content further comprises reflowing the text within the shape consistent with a predetermined display resolution and size.

28. **(Withdrawn)** The client as defined in Claim 26, wherein the presenting by the video output said application includes:

the layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language; and

form elements, scrolling, navigation, and event handling defined in the video content from the original markup language.

29. **(Withdrawn)** The client as defined in Claim 26 and selected from the group consisting of a set top box, a personal computer, a video game console, an automatic teller machine, a cellular telephone, and a computing device for which the

processor hardware has a clock speed of less than or equal to one-hundred (100) MHz and the memory is less than or equal to five (5) megabytes.

30. **(Withdrawn)** The client as defined in Claim 26, wherein the original markup language comprises XHTML+CSS.

31. **(Withdrawn)** A system comprising:

a transcoder to transcode video content in an original markup language into video content in a binary format that includes layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language;

a transport medium for transporting the video content in the binary format; and

a client to:

receive the video content in the binary format from the transport medium;

translate the video content in the binary format with a document object model into a document object model hierarchy corresponding to the video content of the original markup language; and

present the translated video content using the document object model hierarchy.

32. **(Withdrawn)** The system as defined in Claim 31, wherein:

the video content from the original markup language includes inline images and a shape within which the inline images are to be placed during the presenting; and

the presenting of the translated video content further comprises reflowing the inline images within the shape consistent with a predetermined display resolution and size.

33. **(Withdrawn)** The system as defined in Claim 31, wherein the transcoding comprises processing the video content in the original markup language with:

a markup-specific routine that is specific to the original markup language; and

a client-specific routine to specific to the client for the presenting of the translated video content in the binary format so as to be consistent with the original markup language.

34. **(Withdrawn)** The system as defined in Claim 31, wherein the presenting at the client includes:

the layout, rendering, UI interaction, and dynamic aspects of the video content from the original markup language; and

form elements, scrolling, navigation, and event handling defined in the video content from the original markup language.

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35. **(Withdrawn)** The system as defined in Claim 31, wherein the transport medium comprises a network selected from the group consisting of:

a cable television broadcasting network;

a satellite television broadcasting network;

a cellular telephone network;

a terrestrial analog or digital broadcasting television network;

a local area network (LAN);

a wide area network (WAN); and

the Internet.

36. **(Withdrawn)** The system as defined in Claim 31, further comprising a server at a headend of an MSO, wherein the transcoder is included in the server.

37. **(Withdrawn)** A system comprising:

means for compiling:

from content in a complex markup language that includes dynamic layout, presentation, rendering, and user interface interaction; and

to serialized binary data that encodes the dynamic layout, presentation, rendering, and user interface interaction of the content;

client engine means, using the serialized binary data, for the dynamic layout, presentation, rendering, and user interface interaction of the content on a client.

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38. **(Withdrawn)** The system as defined in Claim 37, wherein:

the client engine means comprises a DOM used to form a DOM hierarchy having a plurality of element; and

the plurality of elements in the DOM hierarchy have respective properties that can be used to perform the layout, rendering, and UI interaction at the client.

39. **(Withdrawn)** The system as defined in Claim 37, wherein the client is selected from the group consisting of a set-top box, a personal computer, a video game console, an automatic teller machine, a cellular telephone, and a computing device having processor hardware with a clock speed of less than twenty (20) MHz and having memory less than two (2) megabytes.

40. **(Withdrawn)** The system as defined in Claim 37, wherein the content in the complex markup language comprises XHTML+CSS.